WHAT IS CLAIMED IS:

1. An optical disk apparatus comprising:

a rotation control portion controls rotating of an optical disk having an information recording layer;

an optical head which irradiates the optical disk which is rotated by the rotation control portion, with a laser beam or receives reflected wave, and performs recording processing or reproducing processing;

a waiting position decision portion which detects physical properties of each region in the optical disk after the recording processing or reproducing processing is finished, and decides a waiting position of the optical head according to the physical properties; and

a control portion which controls a position of the optical head according to the waiting position decided by the waiting position decision portion in order to move the optical head to wait.

2. An optical disk apparatus according to claim 1, wherein the waiting position decision portion detects physical properties of each region in the optical disk from the reflected wave from the optical disk by the optical head, and distinguishes the information recording layer into an unrecorded region and a recorded region where the recording processing has been performed on the basis of the detection.

3. An optical disk apparatus according to

claim 1, wherein the waiting position decision portion detects physical properties of each region in the optical disk from the reflected wave from the optical disk by the optical head, distinguishes the information recording layer into an unrecorded region and a recorded region where the recording processing has been performed on the basis of the detection, and decides the waiting position at a position before a boundary line of the unrecorded region by a predetermined amount toward the side of the recorded region.

4. An optical disk apparatus according to claim 1, wherein the waiting position decision portion detects physical properties of each region in the optical disk from the reflected wave from the optical disk with the optical head, and distinguishes the information recording layer into an unrecorded region and a recorded region where the recording processing has been performed on the basis of the detection, recognizes the recordable region where recording processing can be performed in the recorded region when the unrecorded region is absent, and decides the waiting position before the recordable region.

5. An optical disk apparatus according to claim 1, wherein the waiting position decision portion and the control portion detect physical properties of each region in the optical disk from the reflected wave from the optical disk with by optical head, distinguish

the information recording layer into an unrecorded region and a recorded region where the recording processing has been performed on the basis of the detection, and further decide the waiting position at a position before a boundary line of the unrecorded region by a first predetermined amount toward the side of the recorded region so as to move the optical head, and decide the waiting position at a position before the boundary line of the unrecorded region by a second predetermined amount when an instruction of the recording processing or the reproducing processing is absent after a predetermined time interval so as to move the optical head.

6. An optical disk apparatus according to claim 1, wherein, when the waiting position decision portion detects physical properties of each region in the optical disk from the reflected wave from the optical disk by the optical head and distinguishes the information recording layer into an unrecorded region and a recorded region where the recording processing has been performed on the basis of the detection, when the unrecorded region is present in each of a plurality of recording layers of the optical disk, the waiting position decision portion gives priority to the unrecorded region located in the recording layer on the side of the optical head, and decides the waiting position at a position before a boundary line of the

unrecorded region by a predetermined amount toward the side of the recorded region.

7. An optical disk apparatus according to claim 1, wherein, when the waiting position decision portion detects physical properties of each region in the optical disk from the reflected wave from the optical disk by the optical head and distinguishes the information recording layer into an unrecorded region and a recorded region where the recording processing has been performed on the basis of the detection, when the unrecorded region is present in each of a groove and a land of the optical disk, the waiting position decision portion gives priority to the unrecorded region located in the recording layer of the groove, and decides the waiting position at a position before the boundary line of the unrecorded region by a predetermined amount toward the side of the recorded region.

8. An optical disk apparatus according to claim 1, wherein after the waiting position decision portion detects physical properties of each region in the optical disk from the reflected wave from the optical disk by the optical head, and decides an unrecorded region in which the optical head waits or a recorded region where the recording processing has been performed on the basis of the detection,

the waiting position decision portion decides the

waiting position on an inner radius side of the unrecorded region or recordable region, when the optical disk has a track structure in which the recording is performed from an inner radius to an outer radius, and

decides the waiting position on an outer radius side of the unrecorded region or recordable region, when the optical disk has the track structure in which the recording is performed from the outer radius to the inner radius.

9. An optical disk apparatus according to claim 1, wherein the rotation control portion separately controls rotational speed of a plurality of zones provided in the optical disk, when a first zone including the waiting position is different from a second zone where the optical head performs recording processing or reproducing processing, the rotation control portion causes the optical head to wait at the waiting position while the rotation control portion controls the optical disk so as to rotate the optical disk at rotational speed according to the second zone.

10. An optical disk apparatus comprising:

an optical head which irradiates an optical disk having an information recording layer with a laser beam or receives reflected wave, and performs recording processing or reproducing processing;

a waiting position decision portion which detects

physical properties of each region in the optical disk when the optical disk is newly mounted and detected by the optical head, and decides a waiting position of the optical head according to the physical properties; and

a control portion which controls a position of the optical head according to the waiting position decided by the waiting position decision portion in order to move the optical head to wait.

11. A waiting method of an optical disk apparatus having an optical head which irradiates an optical disk having an information recording layer with a laser beam or receives reflected wave and performs recording processing or reproducing processing, comprising:

rotating the optical disk at predetermined rotation speed;

detecting physical properties of each region in the rotating optical disk after the recording processing or reproducing processing is finished, and deciding a waiting position of the optical head according to the detection; and

controlling a position of the optical head according to the decided waiting position in order to move the optical head to wait.

12. A waiting method according to claim 11, wherein the waiting position decision detects physical properties of each region in the optical disk from the reflected wave from the optical disk by the optical

head, and distinguishes the information recording layer into an unrecorded region and a recorded region where the recording processing has been performed on the basis of the detection.

13. A waiting method according to claim 11, wherein the waiting position decision detects physical properties of each region in the optical disk from the reflected wave from the optical disk by the optical head, distinguishes the information recording layer into an unrecorded region and a recorded region where the recording processing has been performed on the basis of the detection, and decides the waiting position at a position before a boundary line of the unrecorded region by a predetermined amount toward the side of the recorded region.

14. A waiting method according to claim 11, wherein the waiting position decision detects physical properties of each region in the optical disk from the reflected wave from the optical disk with the optical head, and distinguishes the information recording layer into an unrecorded region and a recorded region where the recording processing has been performed on the basis of the detection, recognizes the recordable region where recording processing can be performed in the recorded region when the unrecorded region is absent, and decides the waiting position before the recordable region.

15. A waiting method according to claim 11, wherein the waiting position decision and the control detect physical properties of each region in the optical disk from the reflected wave from the optical disk with by optical head, distinguish the information recording layer into an unrecorded region and a recorded region where the recording processing has been performed on the basis of the detection, and further decide the waiting position at a position before a boundary line of the unrecorded region by a first predetermined amount toward the side of the recorded region so as to move the optical head, and decide the waiting position at a position before the boundary line of the unrecorded region by a second predetermined amount when an instruction of the recording processing or the reproducing processing is absent after a predetermined time interval so as to move the optical head.

16. A waiting method according to claim 11, wherein, when the waiting position decision detects physical properties of each region in the optical disk from the reflected wave from the optical disk by the optical head and distinguishes the information recording layer into an unrecorded region and a recorded region where the recording processing has been performed on the basis of the detection, when the unrecorded region is present in each of a plurality of

recording layers of the optical disk, the waiting position decision gives priority to the unrecorded region located in the recording layer on the side of the optical head, and decides the waiting position at a position before a boundary line of the unrecorded region by a predetermined amount toward the side of the recorded region.

17. A waiting method according to claim 11, wherein, when the waiting position decision detects physical properties of each region in the optical disk from the reflected wave from the optical disk by the optical head and distinguishes the information recording layer into an unrecorded region and a recorded region where the recording processing has been performed on the basis of the detection, when the unrecorded region is present in each of a groove and a land of the optical disk, the waiting position decision gives priority to the unrecorded region located in the recording layer of the groove, and decides the waiting position at a position before the boundary line of the unrecorded region by a predetermined amount toward the side of the recorded region.

18. A waiting method according to claim 11, wherein after the waiting position decision detects physical properties of each region in the optical disk from the reflected wave from the optical disk by the optical head, and decides an unrecorded region in which

the optical head waits or a recorded region where the recording processing has been performed on the basis of the detection,

the waiting position decision decides the waiting position on an inner radius side of the unrecorded region or recordable region, when the optical disk has a track structure in which the recording is performed from an inner radius to an outer radius, and

decides the waiting position on an outer radius side of the unrecorded region or recordable region, when the optical disk has the track structure in which the recording is performed from the outer radius to the inner radius.

19. A waiting method according to claim 11, wherein the rotating of the optical disk separately controls rotational speed of a plurality of zones provided in the optical disk, when a first zone including the waiting position is different from a second zone where the optical head performs recording processing or reproducing processing, the rotation control portion causes the optical head to wait at the waiting position while the rotation control portion controls the optical disk so as to rotate the optical disk at rotational speed according to the second zone.